

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A network management system comprising:
 - a plurality of nodes;
 - a recording medium apparatus operable to store data, said recording medium apparatus being connected to said nodes through a network;
 - a data manager operable to manage physical information of the data of said recording medium apparatus, distinctive information and security information concerning the data, and system configuration information of the network; and
 - an access manager operable to manage access to the data of said recording medium apparatus, said access manager being operable to judge whether or not to approve the access from the information of said data manager, a kind of access, a band state of the network and a band state of an interface of said recording medium apparatus, and to secure a transmission band for accessing the data, when the access is approved,
 - wherein said nodes are operable to query said access manager, in accessing said recording medium apparatus, whether or not the access can be approved, and to act in accordance with the response of said access manager,
 - wherein said access manager is operable to investigate an access state of said recording medium apparatus and to send access approval to a querying node, if: (a) a preceding access is a write access, and a present access request is a read access, (b) the preceding access is a read access, (e)-or (c) no preceding access exists; if a first access band is secured in an I/O band of said recording medium apparatus; and if a second access band is secured in a band of the network, and
 - wherein the querying node that has received access approval from said access manager is operable to commence access to the data.
2. **(Currently Amended)** A network management system comprising:
 - a plurality of nodes;
 - a recording medium apparatus operable to store data, said recording medium apparatus being connected to said nodes through a network;

a data manager operable to manage physical information of the data of said recording medium apparatus, distinctive information and security information concerning the data, and system configuration information of the network; and

an access manager operable to manage access to the data of said recording medium apparatus, said access manager being operable to judge whether or not to approve the access from the information of said data manager, a kind of access, a band state of the network and a band state of an interface of said recording medium apparatus, and to secure a transmission band for accessing the data, when the access is approved; and

an access channel manager operable to establish an access channel by control of said access manager, when access to the data cannot be done by an ordinary channel,

wherein said nodes are operable to query said access manager, in accessing said recording medium apparatus, whether or not the access can be approved, and to act in accordance with the response of said access manager,

wherein said access manager is operable to investigate an access state of said recording medium apparatus and to send access approval to a querying node, if: (a) a preceding access is a write access, and a present access request is a read access, (b) the preceding access is a read access, or (c) no preceding access exists; if a first access band is secured in an I/O band of said recording medium apparatus; and if a second access band is secured in a band of the network, and

wherein the querying node that has received access approval from said access manager is operable to commence access to the data.

3-6. **(Cancelled)**

7. **(Currently Amended)** The network management system of claim 1, wherein said access manager means is further operable to judge, when an access request to data has been received from any one of the said nodes, whether or not to approve the access based on information from said access manager, and to send the result of judgment back to said nodes.

8. **(Currently Amended)** The network management system of claim 2, wherein said access manager means is further operable to judge, when an access request to data has been received from any one of the said nodes, whether or not to approve the access based on information from said access manager, and to send the result of judgment back to said nodes.

9. **(Currently Amended)** The network management system of claim 1, wherein said access manager is further operable to send, when sending access approval as a result of judging whether or not to approve the access, said the result of judgment to said nodes after securing a transmission band for accessing.

10. **(Currently Amended)** The network management system of claim 2, wherein said access manager is further operable to send, when sending access approval as a result of judging whether or not to approve the access, said the result of judgment to said nodes after securing a transmission band for accessing.

11. **(Currently Amended)** The network management system of claim 2, wherein said access manager is further operable to control said access channel manager, manager to establish the access channel, to manage load status of the network, and to acquire the a network load status as stored in said access channel manager.

12. **(Previously Presented)** The network management system of claim 1, wherein said access manager is operable to control a predetermined node to secure in advance a transmission band required for access to a recording medium apparatus allocated to said predetermined node.

13. **(Previously Presented)** The network management system of claim 2, wherein said access manager is operable to control a predetermined node to secure in advance a transmission band required for access to a recording medium apparatus allocated to said predetermined node.

14. **(Currently Amended)** The network management system of claim 1, wherein one of said nodes is operable to send, in accessing said recording medium apparatus, an access request to said access manager, and

wherein, upon receiving the access request, said access manager is operable to send to said data manager a request for information pertaining to data or said recording medium apparatus, and upon receiving the requested information from said data manager, said access manager is operable to judge whether or not to approve the access.

15. **(Currently Amended)** The network management system of claim 2, wherein one of said nodes is operable to send, in accessing said recording medium apparatus, an access request to said access manager, and

wherein, upon receiving the access request, said access manager is operable to send to said data manager a request for information pertaining to data or said recording medium apparatus, and upon receiving the requested information from said data manager, said access manager is operable to judge whether or not to approve the access.

16. **(Currently Amended)** The network management system of claim 1, wherein said access manager is provided in ~~one of~~ said recording medium apparatus or one of said nodes.

17. **(Currently Amended)** The network management system of claim 2, wherein said access manager is provided in ~~one of~~ said recording medium apparatus or one of said nodes.

18. **(Previously Presented)** The network management system of claim 1, wherein said data manager is provided in one of said nodes or said recording medium apparatus.

19. **(Previously Presented)** The network management system of claim 2, wherein said data manager is provided in one of said nodes or said recording medium apparatus.

20. **(Previously presented)** The network management system of claim 2, wherein said access manager is further operable to control said access channel manager and to cut off the access channel.

21. **(Currently Amended)** The network management system of claim 2, wherein said access channel manager is further operable to control a configuration and access state of the network connected to each port of said access channel manager.

22. **(Currently Amended)** A network management system according to claim 1: claim 1, wherein a predetermined node or said data manager manages-is operable to manage data management information on the data separately from the data thereby to allow deletion of only the data management information when said predetermined node deletes the data.

23. **(Previously presented)** The network management system of claim 22, wherein access to the data deleted by said predetermined node is made accessible from a node other than said predetermined node.

24. **(Previously presented)** The network management system of claim 1, wherein said recording medium apparatus is divided into video and audio sections each of which is operable to respectively use a separate file system.

25. **(Previously presented)** The network management system of claim 2, wherein said recording medium apparatus is divided into video and audio sections each of which is operable to respectively use a separate file system.

26. **(Previously presented)** The network management system of claim 22, wherein said recording medium apparatus is divided into video and audio sections each of which is operable to respectively use a separate file system.

27. **(Previously presented)** The network management system of claim 1, wherein said data manager is further operable to receive newly generated management information each time writing or deleting of data on said recording medium apparatus is made, and to internally reflect the newly generated management information.

28. **(Previously presented)** The network management system of claim 2, wherein said data manager is further operable to receive newly generated management information each time writing or deleting of data on said recording medium apparatus is made, and to internally reflect the newly generated management information.

29. **(Previously presented)** The network management system of claim 22, wherein said data manager is further operable to receive newly generated management information each time writing or deleting of data on said recording medium apparatus is made, and to internally reflect the newly generated management information.

30. **(Previously presented)** The network management system of claim 1, wherein said data manager is further operable to manage and send system configuration information of the network.

31. **(Previously presented)** The network management system of claim 2, wherein said data manager is further operable to manage and send system configuration information of the network.

32. **(Previously presented)** The network management system of claim 22, wherein said data manager is further operable to manage and send system configuration information of the network.

33. **(Previously presented)** The network management system of claim 1, wherein said data manager is further operable to send management information based on a request from a node.

34. **(Previously presented)** The network management system of claim 2, wherein said data manager is further operable to send management information based on a request from a node.

35. **(Previously presented)** The network management system of claim 22, wherein said data manager is further operable to send management information based on a request from a node.

36. **(Currently Amended)** A network management system according to claim 2, wherein a predetermined node or said data manager ~~manages~~is operable to manage data management information on the data separately from the data thereby to allow deletion of only the data management information when said predetermined node deletes the data.

37. **(Currently Amended)** A network management system of claim 1, wherein the network is comprised of a first network and a second network, wherein said plurality of nodes are coupled with the first and second networks, wherein said data manager and said access manager are coupled only with the first network, and wherein said recording media apparatus is coupled only with the second network.

38. **(Currently Amended)** A network management system of claim 2, wherein the network is comprised of a first network and a plurality of second networks, wherein said plurality of nodes are coupled with the first network and one of the plurality of second networks, wherein said data manager and said access manager are coupled only with the first network, and wherein said recording media apparatus is coupled only with one of the plurality of second networks.

39. **(Currently Amended)** A network management system of claim 2,

wherein the network is comprised of a first network and a plurality of second networks,

wherein said plurality of nodes are coupled with the first network,

wherein said plurality of nodes are additionally coupled with one of the plurality of second networks or said access channel manager,

wherein said data manager and said access manager are coupled only with the first network, and

wherein said recording media apparatus is coupled only with one of the plurality of second networks or said access channel manager.

40. **(Currently Amended)** A node for network connection to a recording medium apparatus operable to store data, said node comprising:

a data manager operable to manage physical information of the data of the recording medium apparatus, distinctive information and security information concerning the data, and system configuration information of the network; and

an access manager operable to manage access to the data of the recording medium apparatus, said access manager being operable to judge whether or not to approve the access from the information of said data manager, a kind of access, a band state of the network and a band state of an interface of the recording medium apparatus, and to secure a transmission band for accessing the data, when the access is approved,

wherein said node, queries is operable to query said access manager, in accessing the recording medium apparatus, whether or not the access can be approved, and acts-to act in accordance with the response of said access manager,

wherein said access manager is operable to investigate an access state of the recording medium apparatus and to send access approval to said node, if: (a) a preceding access is a write access, and a present access request is a read access, (b) the preceding access is a read access, or (c) no preceding access exists; if a first access band is secured in an I/O band of the recording medium apparatus; and if a second access band is secured in a band of the network, and

wherein said node is operable to commence access to the data.

41. **(Currently Amended)** A recording medium apparatus for storing data and for network connection to a node, said recording medium apparatus comprising:

a data manager operable to manage physical information of the data of said recording medium apparatus, distinctive information and security information concerning the data, and system configuration information of the network; and

an access manager operable to manage access to the data of said recording medium apparatus, said access manager being operable to judge whether or not to approve the access from the information of said data manager, a kind of access, a band state of the network and a band state of an interface of said recording medium apparatus, and to secure a transmission band for accessing the data, when the access is approved,

wherein said access manager is operable to receive queries from the node, in accessing said recording medium apparatus, whether or not the access can be approved, and the node acts-is operable to act in accordance with the response of said access manager,

wherein said access manager is operable to investigate an access state of said recording medium apparatus and to send access approval to the node, if: (a) a preceding access is a write access, and a present access request is a read access, (b) the preceding access is a read access, or (c) no preceding access exists; if a first access band is secured in an I/O band of said recording medium apparatus; and if a second access band is secured in a band of the network, and

wherein the node is operable to commence access to the data.